

REMARKS

Applicants have amended claims 30, 37-41, 68, 72, and 74, and added new claims 77-82. Claims 36 and 42-46 are canceled, without prejudice. Claims 47-67, 75, and 76 are presently withdrawn. Claims 30-35, 37-41, 68-74, and 77-82 are presented for examination. Favorable reconsideration is respectfully requested.

Allowable Subject Matter

Applicants acknowledge Examiner's conclusion that claim 74 would be allowable if rewritten in independent form. Applicants have amended claim 74 placing that claim in independent form including all the features of the base claim 68 and any intervening claims.

Claim Rejections – 35 U.S.C. § 112

Claims 42 and 43 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. While applicants do not concede that this rejection is proper, in order to expedite prosecution applicants have canceled claims 42 and 43. Thus, this rejection is now moot.

Claims 36-41 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully request reconsideration and withdrawal of this rejection with regard to claims 37-41 in view of the foregoing amendments to those claims. Claim 36 has been canceled, and as such, this rejection is now moot with respect to claim 36.

Claim Rejections – 35 U.S.C. §§ 102 and 103

Claims 30, 31, 38, and 68-72 were rejected as being anticipated by U.S. Patent No. 6,193,172 (Soule). Claims 32-35 and 73 were rejected as being unpatentable over Soule in view of U.S. Patent No. 5,067,655 (Farago). Claims 36-37 and 39-46 were rejected as being unpatentable over Soule. As shown above, applicants have amended independent claims 30 and 68 to recite that the spray nozzle includes one or more spring elements that urge the pressure

piece towards the nozzle outlet. In view of these amendments, withdrawal of the art rejections is respectfully requested.

In this regard, the Office Action (page 3-4) equated Soule's swirl unit 116 and orifice 146 to the pressure plate and nozzle outlet, respectively, of the claims. However, even assuming, without conceding, that Soule's swirl unit 116 could be considered a pressure piece and that Soule's orifice 146 could be considered a nozzle outlet, Soule still does not disclose or render obvious each and every limitation of the claims. In particular, Soule does not describe or render obvious one or more spring elements that urge the pressure piece towards the nozzle outlet. This is not merely a trivial distinction. The spring elements of the claimed configuration can help to bias the pressure piece toward the nozzle outlet, and, as a result, can help to ensure that the pressure piece remains correctly seated to provide a sealing effect such that the desired cleaning jet is achieved.

Farago, relied on for teaching "a pressure piece in fig. 14, with axial slits (42) providing fluid communication to the outlet chamber,"¹ does not remedy the deficiencies of Soule discussed above.

Accordingly, independent claims 30 and 68 are believed to be patentable over the cited references. Each of the dependent claims is believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim, in light of the foregoing amendments, and, as such, has not been discussed specifically herein.

New Claim 82

Applicants have added new claim 82 which covers a spray nozzle for a dental cleaning system. The spray nozzle includes, *inter alia*, a liquid duct sized and configured to supply pressurized liquid to the chamber at a pressure of at least 15 bar.

With regard to the rejection of claim 39, the Office action (page 7) correctly acknowledged that "Soule does not specifically mention that the liquid duct supplies pressurized liquid to the chamber of at least 15 bar," however, the Office Action suggested that "the feature

¹ See, e.g., Office Action at page 6.

of choosing a particular fluid pressure or the range of pressure is merely a design consideration and it would have been obvious to one of ordinary skill in the art at the time the invention was made to meet the pressure (or the range) as desired by the user.” To the extent that the Examiner may feel that the same arguments apply to new claim 82, applicants respectfully disagree and submit that it would not have been obvious to provide a liquid duct sized and configured to supply pressurized liquid at a pressure of at least 15 bar in a spray nozzle for a dental cleaning system. At the time of applicants’ invention, conventional dental cleaning devices were known to employ much lower liquid pressures (e.g., 3 to 5 bar) to avoid an unpleasant intensity of impact of the liquid on the gums. A person of ordinary skill in the art at the time the applicants’ invention would have expected that a continuous jet of a highly pressurized liquid of at least 15 bar would cut into the gums, and thus would have been discouraged from using such highly pressurized liquid with a spray nozzle for a dental cleaning system. Accordingly, new independent claim 82 is believed to be patentable.

Rejoinder

Claims 47-67, 75, and 76 include all of the features of claim 30. Pursuant to MPEP §821.04(a), “[w]here restriction was required between independent or distinct products ... and all claims directed to an elected invention are allowable, any restriction requirement between the elected invention and any nonelected invention that depends from or otherwise requires all of the limitations of an allowable claim should be withdrawn.” Accordingly, applicants respectfully request that the earlier requirement for restriction be withdrawn and that claims 47-67, 75, and 76 be rejoined and considered for allowance.

CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or

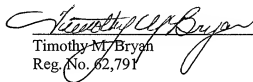
other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

The excess claim fee in the amount of \$220 and Petition for One-Month Extension of Time fee in the amount of \$130 is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please charge any additional fees, not already covered by check, or credit any overpayment, to deposit account 06-1050, referencing Attorney Docket No. 02894-0695US1.

Respectfully submitted,

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